

**No. 707,919.**

**Patented Aug. 26, 1902.**

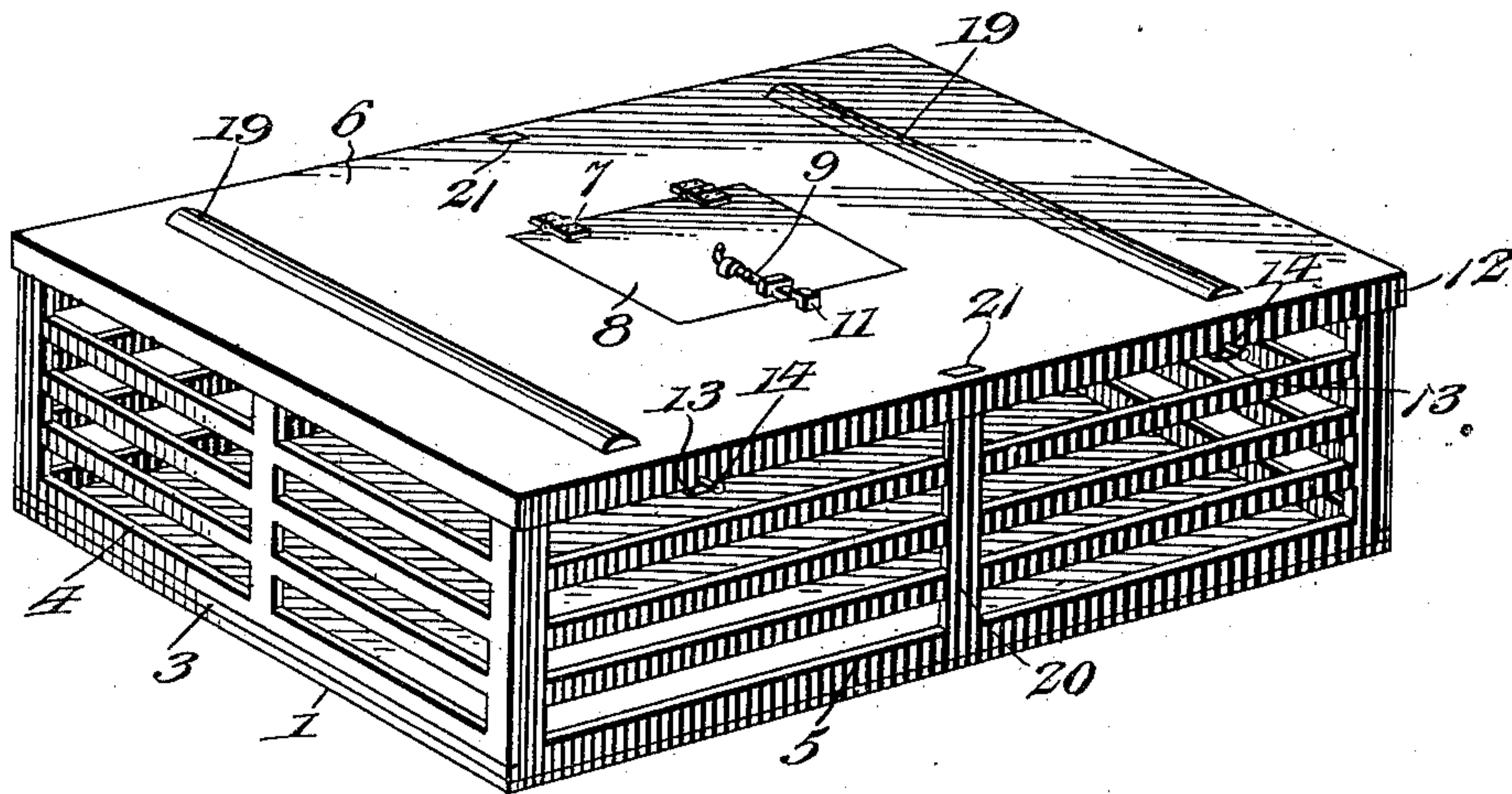
**S. GREER & J. H. GORE.**  
**FOLDING CRATE.**

(Application filed Dec. 30, 1901.)

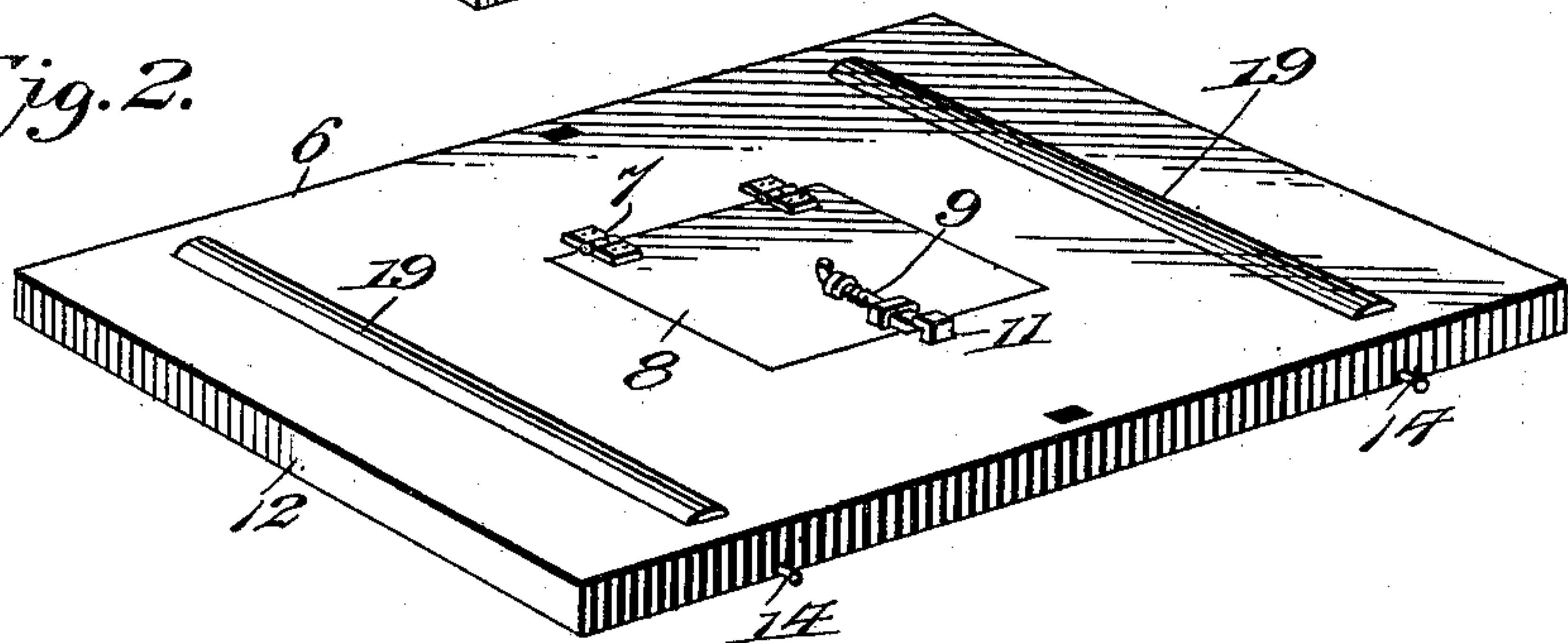
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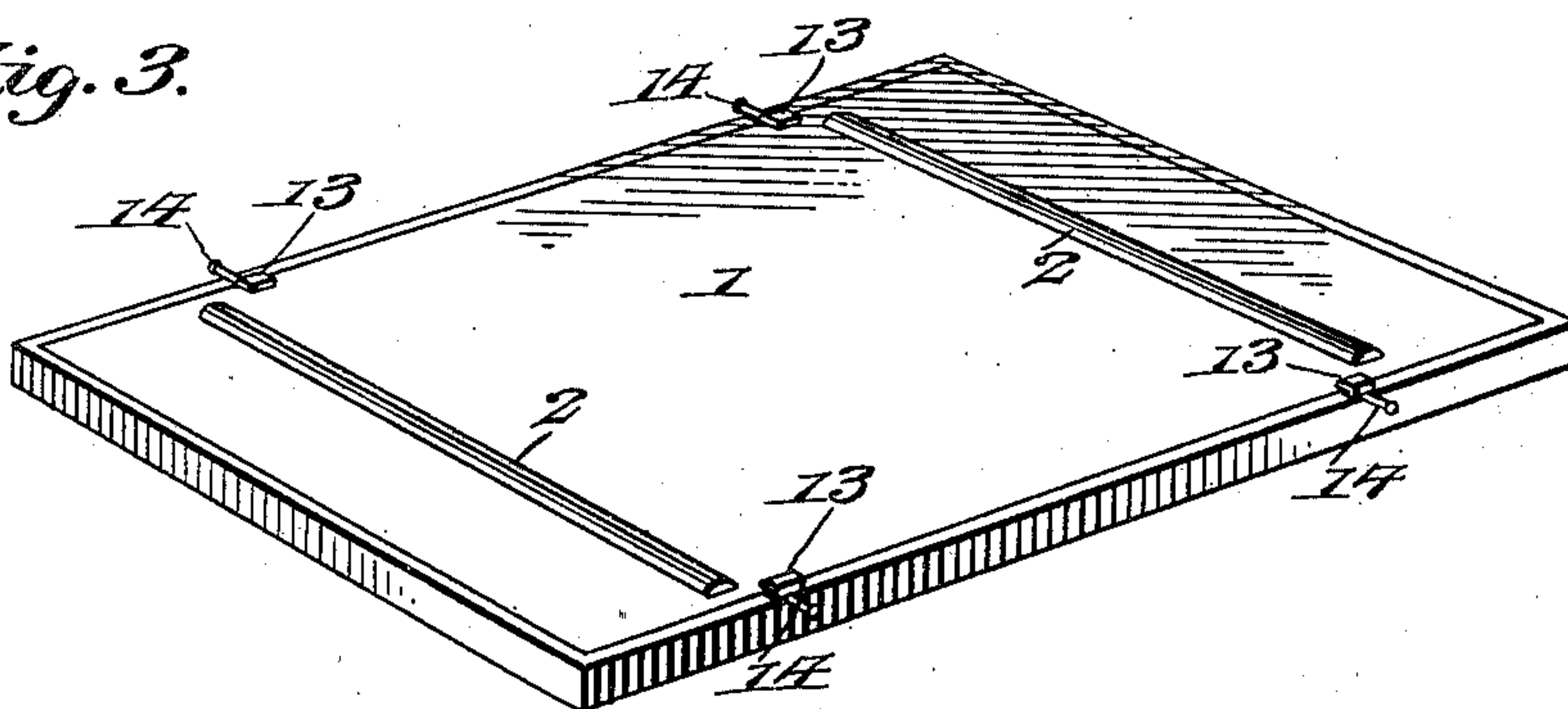
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



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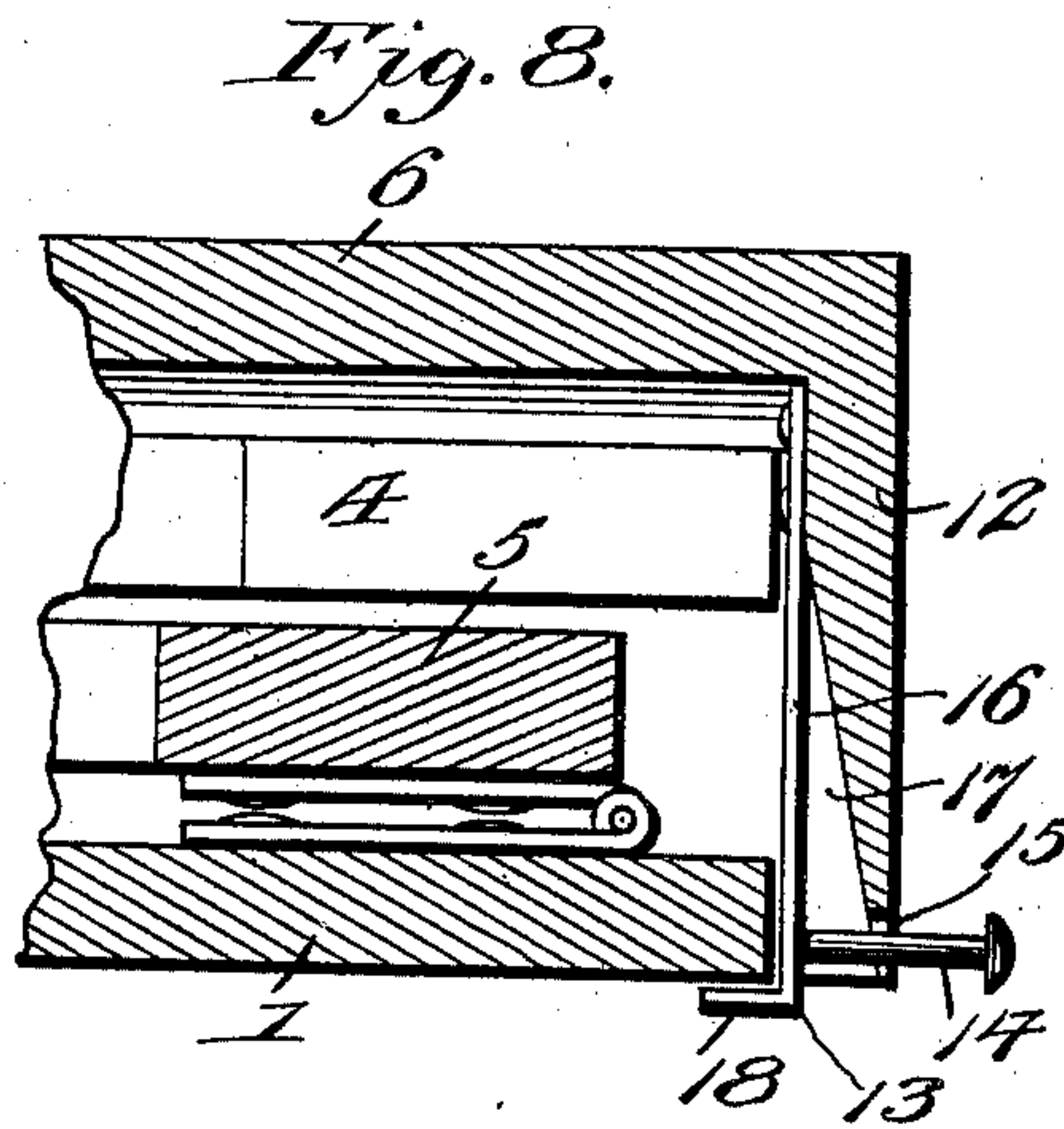
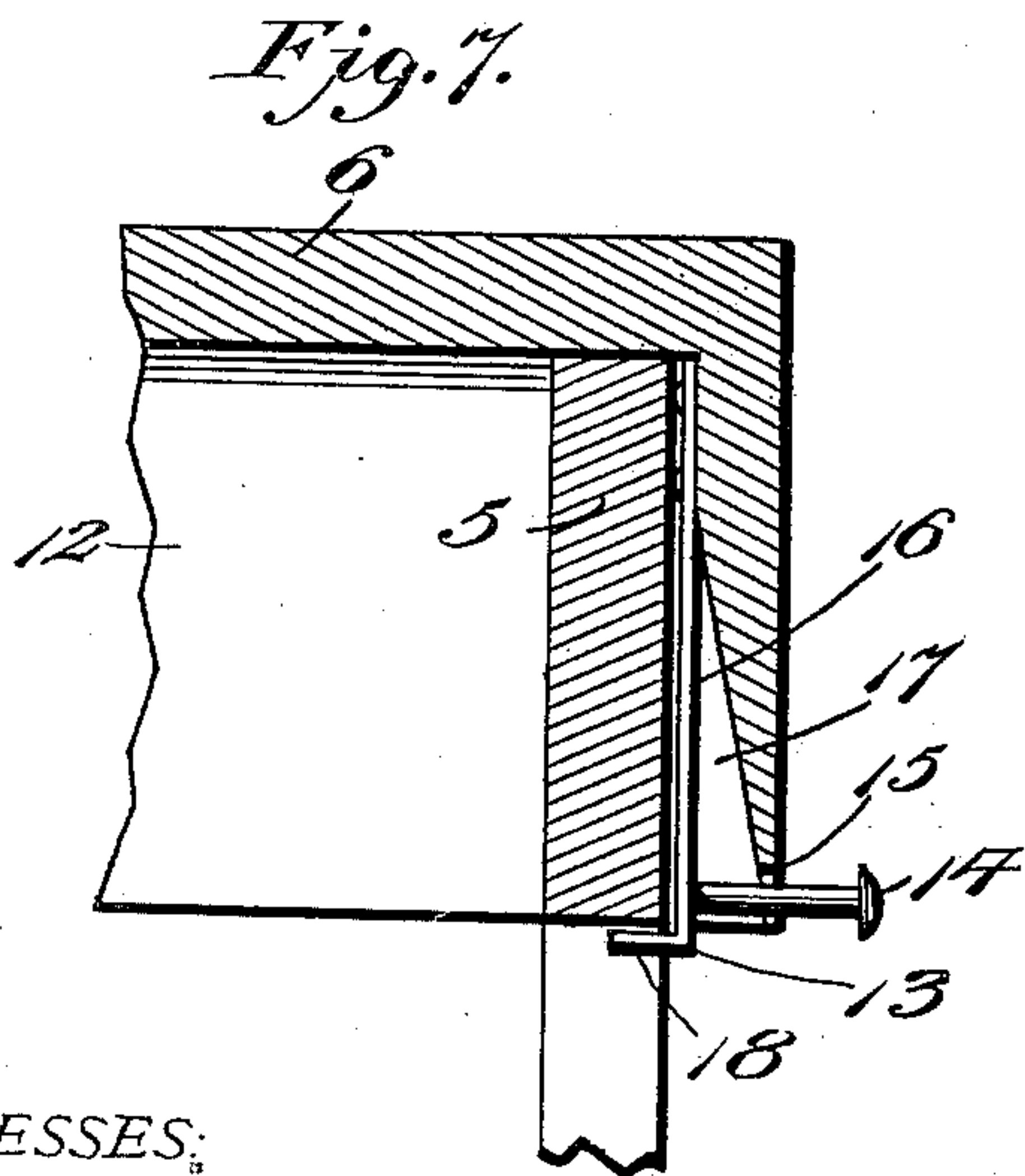
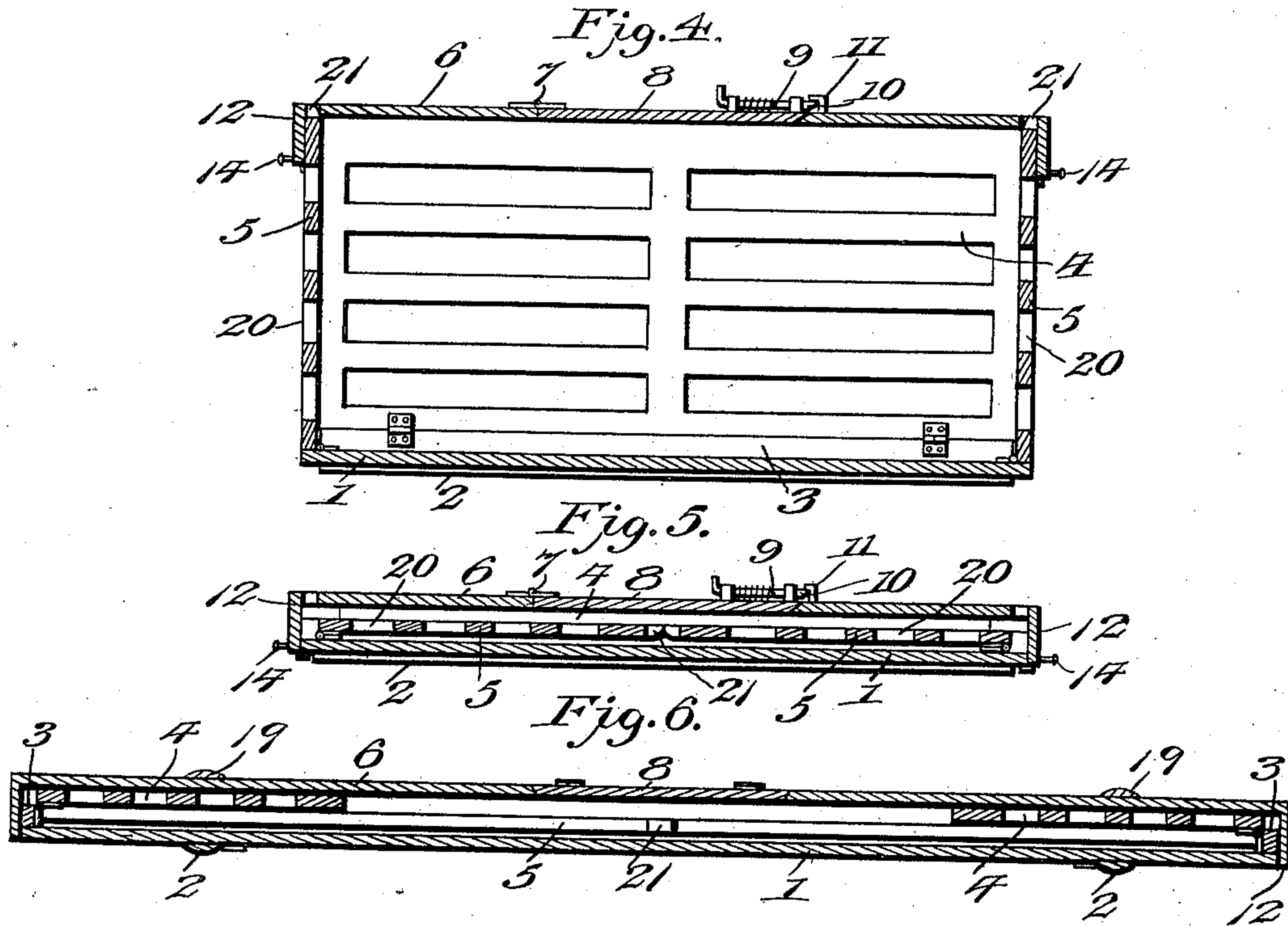
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# UNITED STATES PATENT OFFICE.

SHERMAN GREER AND JAMES H. GORE, OF LINCOLN, NEBRASKA.

## FOLDING CRATE.

SPECIFICATION forming part of Letters Patent No. 707,919, dated August 26, 1902.

Application filed December 30, 1901. Serial No. 87,775. (No model.)

*To all whom it may concern:*

Be it known that we, SHERMAN GREER and JAMES H. GORE, citizens of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented new and useful Improvements in Folding Crates, of which the following is a specification.

This invention relates to folding crates particularly adapted for use for transporting fowls, though the features of the invention embodied in the crate may be likewise applied to crates for transporting other animals or commodities.

Great difficulty has been encountered in the use of crates as heretofore constructed for transporting fowls and the like in preventing injury and loss of the fowls by rapid stacking or disposition of the crates in tiers by reason of the projection of the heads of the fowls through the slatted coverings of said crates and the consequent crushing of the heads when other crates were disposed thereon. It is obvious that railroad employees and others rapidly handling crates containing fowls and the like exercise very little care in preventing injury to the fowls, and the loss to the shipper as well as to the consignee has been material.

It is the purpose of the present construction of crate to overcome these disadvantages by forming the tops of the crates completely closed with the exception of a door-opening which is closed by a door.

The invention also aims to provide a simple and effective form of crate of the collapsible or knockdown character for convenience in return shipments and avoid as much bulk as possible, and consequently a reduction in the express charges or freightage, as well as make it possible to store a great many of the crates within a comparatively small space.

With these and other objects in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a crate embodying the features of the invention. Fig. 2 is a detail perspective view of the collapsed crate. Fig. 3 is a detail perspective view of the collapsed crate in inverted position. Fig. 4 is a transverse vertical section of the crate. Fig. 5 is a trans-

verse vertical section of the crate in collapsed condition. Fig. 6 is a longitudinal vertical section of the crate in collapsed position. Fig. 7 is an enlarged detail sectional view of portions of the crate and member, showing one of the spring-catches. Fig. 8 is an enlarged detail sectional view of portions of the crate, showing one of the improved catches as performing a different function from that shown by Fig. 7.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the bottom of the crate, which is solid or imperforate and has cross-ribs 2 secured thereto to raise the same from direct contact with the surface on which the crate is disposed or when it is arranged on top of another crate for purposes which will be presently set forth. Across the end portions of the bottom 1 are upstanding rails 3, to which are hinged the lower edges of slatted ends 4. Slatted sides 5 are hinged at their lower edges directly to the side edge portions of the bottom 2, so that they may be infolded one upon the other and the ends then likewise turned inwardly over the folded sides to reduce the crate in compact form, as clearly shown by Figs. 5 and 6. The top 6 is also imperforate except at the center, where a door-opening 7 is formed and normally closed by a hinged door 8, and through the said opening 7 access may be had to the interior of the crate. At the center of the side edge portion of the door opposite to that to which the hinges are attached a spring-actuated sliding catch 9 is secured and has a nose 10 to engage under an angular keeper 11 on an adjacent portion of the top 6. The top 6 is also formed with a surrounding rim 12, and to the inner portions of the sides of said rim spring-catches 13 are applied and provided with headed operating-stems or pull-rods 14, projecting through openings 15 in said rim sides. These catches are clearly shown by Figs. 7 and 8 and consist of resilient flat metal strips 16, secured at their upper ends to the rim 12, the latter being cut away or beveled outwardly, as at 17, at the points where the catches are located, so that the lower intumed angular ends 13 of said catches may be cleared from the parts of the



crate with which they are placed in engagement. The top of the crate is also provided with upper cross-ribs 19, the said ribs being high enough from the upper surface of the top to prevent contact of another crate or other device that may be disposed on the top with the catch 9, and the ribs 2 of the bottom 1, heretofore explained, assist in the clearance of the catch 9 when the two sets of ribs are brought into engagement with each other. The ribs 2 also elevate the crate from its resting-surface, and in the event that the crate is disposed upon a moist or other injurious surface the bottom 1 will be held out of contact with said surface and be protected in an obvious manner.

When the crate is set up for use, the ends 4 are turned up in vertical position and the sides 5 then likewise disposed, the sides having their end edges in contact with the inner opposing portions of the terminals of the ends 4, and thereby hold the said ends against inward movement. The top 6 is then applied over the upper edges of the sides and ends, and the spring-catches 16 are caught under the edges of the upper rails of the sides, as clearly indicated by Fig. 7, to hold the said top in locked position. To prevent the sides from moving inwardly, the center bars 20 thereof are projected upwardly above the upper edge of the upper rail or slat of said sides to removably enter corresponding slots 21 in the center of the side portions of the top adjacent the rim, as clearly shown by Fig. 1. When the parts are thus arranged, the crate will be firmly maintained in operative transporting condition and ready to receive fowls, game-birds, or the like, or, if used for transporting general commodities, the door 9 can be correspondingly increased in size to render access to the crate more convenient. When the crate is collapsed, the sides and ends are turned inwardly, as heretofore explained, and the top 6 is disposed over the folded parts, the lower angular ends of the catches 16 being caused to engage the under side of the bottom 1, as clearly shown by Fig. 8. In this collapsed condition the crate is compact in form, and a number of crates can be supported within a comparatively small space with less liability to breakage or injury and with material advantage in the expense of return shipments.

The improved crate will be found useful for many purposes other than those mentioned, and the same principle may apply to packing-boxes or like devices in general, and in the formation of the slatted ends and sides no particular limitation is comprehended, as it is obvious that the same essential features can be embodied in a crate having sides and ends of any slatted construction.

These crates will be preferably made of wood; but at times it may be desirable to construct them of metal or a combination of metal and wood.

Having thus fully described the invention, what is claimed as new is—

1. A crate comprising a bottom, infolding sides and ends secured to said bottom and slatted, the sides having central bars projected at their free terminals beyond the width of said sides, a top of imperforate construction having a surrounding rim and provided with slots therein adjacent the opposite sides to removably receive the projected ends of the said bars, the top also having a central door-opening supplied with a hinged closure, and spring-catches secured to the inner portions of the sides of the rim and provided with lower inward turned angular ends to engage the upper rails of the sides of the crate or the under portion of the bottom.

2. A crate comprising a bottom, infolding slatted sides and ends hinged to said bottom, the sides having central vertically-disposed bars which are extended at their upper extremities, a top having a surrounding rim and raised ribs on the upper surface adjacent the opposite ends extending transversely of the top, the bottom also having similar transverse ribs near the opposite ends, and spring-catches secured to the top and housed within the rim and adapted to engage under the lower edges of the uppermost slats of the sides or the under portion of the bottom, the top also having slots at the center near the opposite sides to removably receive the projected ends of the bars.

In testimony whereof we affix our signatures in presence of two witnesses.

SHERMAN GREER.  
JAMES H. GORE.

Witnesses:

SAMUEL B. IIAMS,  
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